

Claims

1. A biodegradable resin composition, obtained by binding, with a biodegradable resin, solid particles of a predetermined particle size available by pulverizing rice
5 having an outer layer tissue.

2. A biodegradable resin composition according to Claim 1, wherein the solid particles of a predetermined particle size are composed mainly of the outer layer tissue of rice.

10 3. A biodegradable resin composition according to Claim 1, wherein the solid particles of a predetermined particle size are composed mainly of white bran produced in a sake brewing step or remnants of rice washings.

15 4. A biodegradable resin composition according to Claim 2, wherein the solid particles of a predetermined particle size are composed mainly of white bran produced in a sake brewing step or remnants of rice washings.

20 5. A biodegradable resin composition according to Claim 1, 2, 3 or 4, further comprising a functional organic matter derived from a plant.

25 6. A biodegradable resin composition according to Claim 5, wherein the functional organic matter derived from a plant is one of or a combination of at least two of tea derived substances, bamboo derived substances, *Sasa senanensis* lees, wood derived substances, starch lees, rice bran, herb derived substances and kelp derived substances.

7. A biodegradable resin composition according to

Claim 1, 2, 3 or 4, further comprising either one or both of zeolite and silicon.

8. A biodegradable resin composition according to
Claim 5, further comprising either one or both of zeolite
5 and silicon.

9. A biodegradable resin composition according to
Claim 6, further comprising either one or both of zeolite
and silicon.

Claims of Amendment

[Accepted by International Bureau on February 3, 2004 (03.02.04): Claims 1, 3, 5 and 7 applied first were amended and the other claims were withdrawn]

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1. (After amendment) A biodegradable resin composition obtained by binding, with a biodegradable resin, solid particles of a predetermined particle size available by pulverizing rice and composed mainly of an outer layer tissue of rice, wherein the solid particles mean rice powder from which bran has been removed by rice milling.

10 2. (Deleted)

3. (After amendment) A biodegradable resin composition obtained by binding, with a biodegradable resin, solid particles of a predetermined particle size available by pulverizing rice and composed mainly of an outer layer tissue of rice, wherein the solid particles are composed of a residue having, as a main component, a substance derived from the starch layer of rice available by removing bran from rice by rice milling, rinsing the residue with water, and filtering the effluent generated in the rinsing step.

20 4. (Deleted)

25 5. (After amendment) A biodegradable resin composition according to any one of Claims 1 to 3, further comprising a functional organic matter derived from a plant, said organic matter being composed of one or a combination of at least two of tea derived substances,

bamboo derived substances, *Sasa senanensis* lees, wood derived substances, starch lees, rice bran, herb derived substances and kelp derived substances.

6. (Deleted)

5 7. (After amendment) A biodegradable resin composition according to any one of Claims 1, 3 and 5, further comprising zeolite.

8. (Deleted)

9. (Deleted)

Statement Based on Article 19(1)

It has been clarified that as described in Claim 1,
the present invention relates to a biodegradable resin
composition obtained by binding, with a biodegradable resin,
5 solid particles of a predetermined particle size available
by pulverizing rice and composed mainly of an outer layer
tissue of rice, wherein the solid particles mean rice
powder from which bran has been removed by rice milling;
and as described in Claim 2, a biodegradable resin
10 composition, wherein the above-described solid particles
are composed of a residue having, as a main component, a
substance derived from the starch layer of rice available
by removing bran from rice by rice milling, rinsing the
residue with water, and filtering the effluent generated in
15 the rinsing step.

The biodegradable resin as described in JP 10-
88002A which is the first cited reference makes use of rice
bran generated upon sake brewing, while the main component
of the biodegradable resin as described in [0009] of JP
20 2002-3642A which is the second cited reference is also rice
bran. A substance used for promoting the decomposition of
a biodegradable resin as described in JP 2001-323177A which
is a third cited reference is also rice bran. The
biodegradable resin as described in JP 2001-200084A which
25 is the fourth cited reference relates to foamed products or
foam molding products. The invention is utterly different
from the present invention because the biodegradable resin

provided by the present invention can be used, similar to ordinary synthetic resins, for the production of various molded or formed products including sheets which are available from pellets. In the present invention, the 5 molded or formed product available from the biodegradable resin composition of the present invention has sufficient physical properties and exhibits sufficient biodegradability because the rice powder used in the invention has a particle size of from 80 to 250 mesh (from 10 75 to 180 μm) and it is mixed in an amount of from 60 to 95 wt.%, while the biodegradable resin as described in the fourth cited reference is a foamed product and the rice powder employed in the invention has a particle size of about 5 μm , it is mixed in an amount of 30 wt.%, and it 15 mainly facilitates molding in a mold upon obtaining a molded product. The biodegradable resin of the present invention and that as described in the fourth cited reference are profoundly different in the particle size of rice powder, using purpose and influence on the resin.

20 These inventions are different from each other. The present invention is never derived easily from the fourth cited reference. The present invention pertains to rice powder after bran has been removed therefrom by milling, while no such limitation is imposed on the rice powder 25 described in the fourth cited reference. There is thus a clear difference between them also from this viewpoint.